

APPENDIX A

VA. CODE § 10.1-1186.1

§ 10.1-1186.1. Department to publish toxics inventory.

The Department of Environmental Quality shall publish in March of each year the information reported by industries pursuant to 42 U.S.C. § 11023 in its document known as the "Virginia Toxic Release Inventory." The report shall be (i) organized by chemical, facility and facility location, and standard industrial classification code, and (ii) distributed to newspapers of general circulation and television and radio stations. The report shall include the information collected for the most recent calendar year for which data is available prior to the March publication date.

APPENDIX B

GLOSSARY OF TERMS

coincidental manufacture – production of an EPCRA section 313 chemical as a byproduct or impurity as a result of the manufacture, processing, otherwise use, treatment, disposal or other waste management of other chemical substances.

energy recovery – recovery of useful energy from waste mainly through combustion of chemical waste.

facility – defined for the purposes of TRI reporting as all buildings, equipment, structures, and other stationary items which are located on a single site or on contiguous or adjacent sites and which are owned or operated by the same person (entity).

fugitive (non-point) air releases – emissions to the air that are not conveyed through stacks, vents, ducts, pipes, or other confined air streams within the boundaries of a facility. Examples include equipment leaks from valves, pump seals, flanges, compressors, sampling connections, open-ended lines, and evaporative losses from surface impoundments and spills.

manufacture – to produce, prepare, import, or compound a toxic chemical.

off-site locations – locations outside the boundaries of a facility to which wastes are transported for treatment, energy recovery, recycling, or disposal.

otherwise use – any use of a toxic chemical at a facility which is not covered by the definitions of manufacture or process. This includes any activities in which a listed toxic chemical does not become intentionally incorporated into the final product for distribution in commerce. Examples of otherwise use include degreasers, solvents in paints that are applied to a product, chemicals used in water treatment, and refrigerants or coolants.

Persistent Bioaccumulative Toxic (PBT) chemical - a chemical that is stable for a long period of time, and builds up in the environment, particularly in food chains.

Publicly Owned Treatment Works (POTW) – a wastewater treatment facility which is owned by a unit of the government.

process – refers to the preparation of a listed toxic chemical after its manufacture, for distribution in commerce. Processing is usually the intentional incorporation of a toxic chemical into a product. It includes making mixtures, repackaging, and using a toxic chemical as a feedstock, raw material, or starting material for making another chemical.

recycle – the process of capturing a useful product from a waste stream. Solvent recovery, metals recovery, and acid regeneration are examples of recycling.

releases – refers to on-site discharges of TRI chemicals to the air, water, land, and disposal in underground injection wells (none in Virginia). They include permitted, accidental, and non-permitted discharges.

releases to air – see fugitive (non-point) air releases and stack (point source) air releases.

releases to land – refers to landfilling, surface impoundment, land treatment/application farming, or any other release of a toxic chemical to land within the boundaries of a facility.

releases to water – refers to discharging of chemicals to surface waters such as rivers, lakes, ponds, and streams within the boundaries of a facility.

source reduction/pollution prevention – activities that reduce the quantity and /or toxicity of wastes generated. Improved operation and maintenance, process and equipment modification, conservation practices, material substitution, product modification, and in-process recycling are examples of pollution prevention.

stack (point source) air releases – emissions to the air that are conveyed through stacks, vents, ducts, pipes, or other confined air streams within the boundaries of a facility. Examples include storage tank emissions and emissions from air pollution control equipment.

Standard Industrial Classification code (SIC code) – a four digit number code designated by the Federal Office of Management and Budget to describe the type of activity(s) at a facility. The first two numbers of the code define a major business sector, and the last two numbers define a facility's specialty within the major sector.

toxic – a substance that produces or causes a systemic damage to an organism.

transfers – refers to TRI chemicals sent off-site for energy recovery, recycling, treatment or disposal. They are reported as transfers to either Publicly Owned Treatment Works (POTWs) or other off-site transfers (non-POTWs) such as incinerators, landfills, other treatment, recycling, energy recovery, or disposal facilities not part of the reporting facility.

APPENDIX C

SUPPLEMENTARY RESOURCES

Additional TRI data and individual facility information are available for the 1997 through 2003 reporting years. If you would like additional information on specific facilities or chemicals, please call the Virginia Department of Environmental Quality's SARA Title III Office at **(804) 698-4000** or direct your request in writing to the Virginia Department of Environmental Quality, SARA Title III Office, P.O. Box 1105, Richmond, VA 23218.

1. TRI data can be accessed on the Internet through the Virginia Department of Environmental Quality SARA Title III Program web page: <http://www.deq.virginia.gov/sara3/313.html>
2. The Form Rs submitted by facilities within the state are on file at the Virginia DEQ. Any inquiries about Form R information or the TRI program in Virginia should be made to the SARA Title III Program Coordinator.
3. The Environmental Protection Agency's Toxic Release Reporting Center is the national repository for all TRI reports submitted to the EPA. The data is available on CD-ROM, magnetic tape, floppy disk, and microfiche. Copies of the reports were distributed to more than 3,000 libraries nationwide.
4. Any questions regarding the Emergency Planning and Community Right to Know Act (EPCRA) can be forwarded to EPA's toll free EPCRA call center. The phone numbers are: **(800) 424-9346, (703) 412-9810, or TDD (800) 553-7672, TDD (703) 412-3323.**
5. The Automated TRI Reporting Software (ATRS) includes instructions for on-line reporting and submittal of report, the TRI Assistance Library (TRIAL). TRIAL is a Windows based help utility that contains policy and guidance documents to help facilities with TRI reporting. For more information visit EPA's website: <http://www.epa.gov/tri/>
6. The Right-to-Know Network (RTK NET) offers access to TRI data, along with health facts for each TRI chemical, searchable through the World Wide Web, Telenet, and dialup. RTK NET promotes pollution prevention, data analyses, and communication among individuals concerned about toxics use reduction. <http://www.rtk.net/>
7. ENVIROFACTS integrates data extracted from several EPA programs, including TRI. ENVIROFACTS allows users to search the database by facility name, its location, by chemical, or by SIC code. http://www.epa.gov/enviro/index_java.html
8. TRI Explorer is another tool provided by EPA, which allows users to search TRI data by county, facility, chemical, etc. <http://www.epa.gov/triexplorer/>
9. For information on the EPCRA Section 313 program and consolidated list of chemicals subject to EPCRA Section 313 and other federal programs, please visit EPA website: <http://www.epa.gov/tri/>

10. EPA's Risk Screening Environmental Indicators (RSEI) is a computer based model that uses TRI data for analysis of risk-related impacts of toxic chemical releases and transfers in the US.
http://www.epa.gov/opptintr/env_ind/

APPENDIX D

TRI REPORTING CHANGES

CHANGES IN TRI REPORTING OVER THE YEARS

(from most recent to oldest changes)

Methyl Ethyl Ketone (MEK) delisted for 2005

On June 30, 2005 Methyl Ethyl Ketone was deleted from the TRI reportable chemical list. Therefore beginning with reporting year 2005, it was no longer required to be reported under TRI.

Final Rule - Lead and Lead Compounds; Lowering of Reporting Thresholds

On January 13, 2001, EPA published the final rule on lowering the reporting thresholds for lead and lead compounds (66 FR 4499, 40 CFR Part 372). The rule became effective April 17, 2001, and applied to TRI reports for reporting year 2001. The reporting thresholds were lowered to 100 pounds for lead (except when contained in steel, brass and bronze alloys) and lead compounds. Under previous reporting requirements facilities had to report lead and lead compounds only if they manufactured or processed more than 25,000 pounds annually or otherwise used more than 10,000 pounds annually. Lead and lead compounds are of concern not only because they are persistent bioaccumulative toxic chemicals but also because they are especially toxic to children. Children absorb lead more readily than adults. Once exposed they can suffer from damage to the brain and central nervous system, slow growth, hyperactivity, and behavior and learning problems. Adults can suffer difficulties during pregnancy, high blood pressure, nervous disorders, and memory and concentration problems.

Chromite Ore from the Transvaal Region of South Africa delisted for 2000

On May 11, 2001 both chromite ore mined in the Transvaal Region of South Africa, and the unreacted ore component of the chromite ore processing residue (COPR) were deleted from TRI reporting requirements. Therefore, beginning with reporting year 2000 this particular chromite ore and the unreacted ore component of the COPR are no longer required to be reported under TRI.

Note that this delisting does not include any of the Cr(III) or Cr(VI) compounds that are also part of the COPR. This delisting only applies to the unreacted ore component of the COPR.

Persistent Bioaccumulative Toxic Chemicals Rule added for 2000

EPA finalized a rule on October 29, 1999 (64 FR 58666) to add several persistent bioaccumulative toxic (PBT) chemicals to the TRI reportable chemical list, and to lower the reporting thresholds for a subset of the PBTs. Additionally, this rule added the non-PBT chemical category vanadium compounds and changed the qualifier for the non-PBT chemical vanadium. The new chemicals and thresholds were first reported in reporting year 2000.

Phosphoric acid delisted for 1999

On June 27, 2000 phosphoric acid was deleted from the TRI reportable chemical list. Therefore beginning with reporting year 1999, it was no longer required to be reported under TRI.

Facility expansion

On May 1, 1997, the United States Environmental Protection Agency (USEPA) published a final rule (62 FR 23833; 40 CFR Part 372) expanding the industries required to report their toxic chemical releases and management under the EPCRA Section 313 - Toxic Release Inventory (TRI). Traditionally only the manufacturing sectors were required to file TRI reports. However, this rule expansion required seven non-manufacturing sectors to report. This regulation became effective for the 1998 calendar year activity reporting. The new industries were:

- Metal Mining (SIC 10, except 1011, 1081, and 1094)
- Coal Mining (SIC 12, except 1241)
- Electricity Utilities (SIC 4911, 4931, and 4939) - only facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce
- Treatment, Storage, and Disposal Facilities (TSDF) (SIC 4953 - only facilities regulated under the RCRA Subtitle C, 42 U.S.C. section 6921 et seq.)
- Chemical Distributors (SIC 5169)
- Petroleum Terminals and Bulk Storage Facilities (SIC 5171)
- Solvent Recovery Facilities (SIC 7389 - only facilities primarily engaged in solvent recovery services on a contract or fee basis)

EPA expanded the TRI reporting coverage with the intention to broaden and improve the "community right-to-know" public data base and to fill information gaps relating to the use and releases and other waste management activities of toxic chemicals by the existing covered facilities. According to EPA, the industry groups being covered under the expansion rule are responsible for the manufacturing, processing, otherwise use, releases, and/or other waste management of substantial quantities of TRI chemicals, and are engaged in activities similar to or related to activities conducted by manufacturing sectors.

Chemicals removed for 1997

The two chemicals removed from the TRI chemical reporting list were:

2-bromo-2-nitropropane (bronopol)
2,6-dimethylphenol

New chemicals added for 1995

For 1995, 286 toxic chemicals and chemical categories were added to the TRI chemical list. This resulted in almost doubling the amount of listed TRI chemicals. See EPA website:

<http://www.epa.gov/tri/chemical/index.htm>

U.S. Pollution Prevention Act Rulemaking

In 1990, the Pollution Prevention Act (PPA) was passed by Congress requiring the addition of information on source reduction and toxic chemicals in waste. The change in program generated many

comments (regarding definitions of waste stream, reportable recycling, and in-process recycling) from industry, environmental groups, and the public.

RECENT DEVELOPMENTS IN TRI REPORTING**Court Decision in Barrick Goldstrike Mines, Inc. v. Whitman, (Civ. Action No. 99-958(TPJ))**

On April 2, 2003, Judge Thomas P. Jackson of the District Court for the District of Columbia ruled in the Barrick Goldstrike Mines, Inc. v. Whitman, regarding the TRI reporting obligations of mining industry, by upholding EPA's interpretations of "Intra-Category Manufacture" and "Reporting on Toxic Chemicals in Tailings." The rulings were limited to the reporting of "naturally occurring" impurities and impacted on how the amount of impurity in the process stream is reported and allowed *de minimis* exemption claim on naturally occurring non-PBT chemicals present in waste rock.

Denial of Petition - Overburden Exemption

On October 10, 2001, (67 FR 63060) EPA denied the petition submitted by the National Mining Association (NMA) to modify the EPCRA Section 313 definition of "overburden" to include both consolidated and unconsolidated material. As written in the regulation, only unconsolidated material is considered as overburden under the TRI program. EPA concluded that consolidated rock includes materials that often contain toxic chemicals above negligible amounts, often in significant quantity.

EPA Response to National Mining Association (NMA) on Extraction and Beneficiation Activities

On April 23, 2001, EPA responded to a guidance request from the National Mining Association on whether extraction and beneficiation activities at mining facilities constitute the "processing" or "manufacture" of toxic chemicals in ore.

- (i) The term "manufacture" means to produce, prepare, import, or compound a toxic chemical.
- (ii) The term "process" means the preparation of a toxic chemical, after its manufacture, for distribution in commerce.

EPA responded in the letter that they intend to initiate rulemaking to adopt a revised interpretation that will allocate extraction and beneficiation activities between these two statutory terms. However, until this rulemaking is completed, EPA will not definitively resolve whether a particular activity is best characterized as "manufacturing" or as "processing." For now, individual facilities will remain responsible for determining whether their preparation of the toxic chemicals in the ore is better characterized as "manufacturing" or "processing."

Stakeholder Dialogue for the TRI Program

EPA has undertaken a stakeholder dialogue for the TRI program. Given its community focus and the broad and varied uses of the TRI data, EPA has sought input from stakeholders.

The stakeholder dialogue contains two phases. Phase 1 focuses on the program objectives of timely public release of quality data. Specifically, EPA sought comment in the following areas:

- how to improve the compliance assistance provided by the TRI program, both at Headquarters and in the Regions, to aid the reporting community;
- how to streamline the collection and processing of the 90,000+ TRI forms that EPA receives annually; and
- how well the materials, including the context, documents and tools, that EPA develops for its annual public release of the TRI data supports their use and analysis of the data.

Phase 2 of the stakeholder dialogue focuses on the program objectives of improving public understanding of the data and of the nature of facility releases. One key element is clarifying the data elements on recycling and other waste management activities required by the Pollution Prevention Act

Proposed Diisononyl Phthalate Category (DINP)

EPA proposed a rule September 5, 2000 (65 FR 53681) to add a diisononyl phthalate (DINP) category to the list of toxic chemicals subject to the reporting requirements under the Emergency Planning and Community Right-To-Know Act (EPCRA) section 313. The proposed rule is based on DINP's carcinogenicity and liver, kidney, and developmental toxicity. EPA had extended the comment period until February 2, 2001. DINP is often used as a plasticizer to provide greater flexibility and softness to the final product, but it does have other uses.

APPENDIX E

TRI-COVERED INDUSTRY GROUPS BY STANDARD INDUSTRIAL CLASSIFICATION CODE

TRI covered industry groups are identified by the following Standard Industrial Classification (SIC) codes:

- **10** Metal Mining (except 1011, 1081, and 1094)
- **12** Coal Mining (except 1241)
- **20** Food and Kindred Products
- **21** Tobacco Products
- **22** Textile Mill Products
- **23** Apparel and Other Finished Products Made from Fabrics and Other Similar Materials
- **24** Lumber and Wood Products, Except Furniture
- **25** Furniture and Fixtures
- **26** Paper and Allied Products
- **27** Printing, Publishing, and Allied Industries
- **28** Chemicals and Allied Products
- **29** Petroleum Refining and Related Industries
- **30** Rubber and Miscellaneous Plastics Products
- **31** Leather and Leather Products
- **32** Stone, Clay, Glass and Concrete Products
- **33** Primary Metal Industries
- **34** Fabricated Metal Products, Except Machinery and Transportation Equipment
- **35** Industrial and Commercial Machinery and Computer Equipment
- **36** Electronic and Other Electrical Equipment and Components, Except Computer Equipment
- **37** Transportation Equipment
- **38** Measuring, Analyzing, and Controlling Instruments; Photographic, Medical and Optical Goods; Watches and Clocks
- **39** Miscellaneous Manufacturing Industries
- **4911** Electric Services (only facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce)
- **4931** Electric and Other Services Combined (only facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce)
- **4939** Combination Utilities, Not Elsewhere Classified (only facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce)

- **4953** Refuse Systems (only facilities regulated under the RCRA Subtitle C, 42 U.S.C. Section 6921 et seq.)
- **5169** Chemical and Allied Products, Not Elsewhere Classified
- **5171** Petroleum Terminals and Bulk Stations
- **7389** Business Services, Not Elsewhere Classified (only facilities primarily engaged in solvents recovery services on a contract or fee basis)